

## REMARKS

Claims 26-53 are active in this application.

This application is a continuation of U.S. Application Serial No. 09/448,310, filed November 24, 1999, now allowed, which is a Continuation of U.S. Application Serial No. 09/109,063, filed on July 2, 1998, now U.S. Patent No. 6,013,498.

Applicants note that the claims of the present application are the same as parent case U.S. Application, Serial No. 09/448,310. The present application has been filed, in part, to obtain consideration of Devlin et al (Gene, vol. 65, 1988, pages 13-22) cited in the in the Information Disclosure Statement submitted herewith. This reference was submitted in the parent case.

The specification has been amended to insert Sequence identifiers (SEQ ID NO:) and to insert the attached Sequence Listing.

The paper copy of the Sequence Listing filed in this application is identical to the last-filed computer readable Sequence Listing in application 09/109,063 filed July 2, 1998. In accordance with 37 CFR § 1.821 (e), Applicants request that the Patent Office use the last-filed computer readable form filed in that application as the computer readable form for the instant application. It is understood that the Patent and Trademark Office will make the necessary change in application number and filing date for the instant application.

Early notice to this effect is earnestly solicited.

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

*[Signature]*

Daniel J. Pereira, Ph.D.  
Registration No. 45,518



**22850**

(703) 413-3000

Fax #: (703)413-2220

[illegible]

**Marked-Up Copy**  
Serial No: New Application  
Amendment Filed on:  
November 30, 2001

IN THE SPECIFICATION

Please amend the specification as follows:

Page 1, after the Title, insert

--This application is a Continuation of U.S. Application Serial No. 09/448,310 filed November 24, 1999, now allowed, which is a Continuation of U.S. Application Serial No. 09/109,063, filed on July 2, 1998, now US Patent No. 6,013,498.--

Page 8, line 19 through page 9, line 8, replace the text in its entirety with the following:

The DNA of the present invention encodes the above-mentioned proteins. Among these, the preferred is a DNA wherein a base sequence encoding for Arg at the fourth position from the N-terminal amino acid is CGT or CGC, and a base sequence encoding for Val at the fifth position from the N-terminal amino acid is GTT or GTA. Furthermore, the preferred is a DNA wherein a base sequence encoding for the N-terminal amino acid to fifth amino acid, Seq-Asp-Asp-Arg-Val (SEQ ID NO: 60), has the following sequence

Ser: TCT or TCC

Asp: GAC or GAT

Asp: GAC or GAT

Arg: CGT or CGC

Val: GTT or GTA

In this case, the preferred is a DNA wherein a base sequence encoding for amino acid sequence of from the N-terminal amino acid to fifth amino acid, Ser-Asp-Arg-Val (SEQ ID NO: 60), has the sequence TCT-GAC-GAT-CGT-GTT (SEQ ID NO: 61).

Page 15, line 22 through page 16, line 2, replace the text in its entirety with the following:

In fact, a sequence of Met-Ser-Asp-Asp-Arg- . . . . . (SEQ ID NO: 62) was designed by deleting N-terminal aspartic acid residue from transglutaminase derived from microorganism (MTG), and this was produced in E. coli. As a result, methionine residue was efficiently removed and thereby there was obtained a protein having a sequence of Ser-Asp-Asp-Arg- . . . . . (SEQ ID NO:1, residues 2-5). It was confirmed that the specific activity of the thus-obtained protein is not different from that of natural MTG.

Please delete the original Sequence Listing at pages 27-63 without prejudice.

Page 67, after the last line, beginning on a new page, please insert the attached substitute Sequence Listing.

#### IN THE CLAIMS

Claims 1-25 are canceled.

Claims 26-53 are added.